

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A process for preparing a micro-array for analysis of DNA which comprises the steps of:

spotting onto a solid carrier in a predetermined area thereof in which a number of vinylsulfonyl groups are fixed an aqueous solution which contains a thickening agent comprising a water-soluble polymer ~~carboxymethylcellulose and polyacrylamide~~ selected from the group consisting of carboxymethylcellulose and polyacrylamide ~~and which has a viscosity of 2 to 50 mPa-s~~ and probe molecules having an amino group, ~~and the probe molecules being selected from the group consisting of nucleic acid fragments, oligonucleotides and peptide nucleic acids,~~
the aqueous solution having a viscosity of 2 to 50 mPa s;

spotting onto the solid carrier in an area other than the area in which the aqueous solution was spotted and in which vinylsulfonyl groups are fixed an aqueous solution which contains a thickening agent comprising a water-soluble polymer selected from the group consisting of carboxymethylcellulose and polyacrylamide ~~and which has a viscosity of 2 to 50 mPa-s~~ and probe molecules having an amino group, ~~and the probe molecules being selected from the group consisting of nucleic acid fragments, oligonucleotides and peptide nucleic acids,~~ the aqueous solution having a viscosity of 2 to 50 mPa s;

incubating the solid carrier having the spotted aqueous solutions on the surface thereby causing reaction for producing the covalent bondings between the vinylsulfonyl groups and the amino groups; and

washing the surface of the solid carrier with an aqueous medium to remove all of the thickening agent from the surface of the solid carrier, thereby preparing the micro-array.

2-4. (Cancelled).

5. (Previously Presented) The process of claim 1, wherein the vinylsulfonyl group is provided to the solid carrier by reacting a divinylsulfone compound with a amino group which has been previously placed on the solid carrier.

6. (Original) The process of claim 1, wherein the aqueous medium for washing the solid carrier contains a surface active agent.

7. (Previously Presented) The process of claim 1, wherein each of the aqueous solutions has a viscosity identical to each other.

8. (Withdrawn) A micro array for analysis of DNA which is prepared by claim 1.

9. (Withdrawn): A process for preparing a micro-array for analysis of DNA which comprises the steps of:

spotting onto a solid carrier in a predetermined area thereof in which a number of amino groups are fixed an aqueous solution which contains a thickening agent comprising a water-soluble polymer selected from the group consisting of carboxymethylcellulose and polyacrylamide and which has a viscosity of 2 to 50 mPa · s and probe molecules having a

phosphoric acid group and the probe molecules being selected from the group consisting of nucleic acid fragments, oligonucleotides and peptide nucleic acids;

spotting onto the solid carrier in an area other than the area in which the aqueous solution was spotted and in which amino groups are fixed an aqueous solution which contains a thickening agent comprising a water-soluble polymer and which has a viscosity of 2 to 50 mPa · s and probe molecules having a phosphoric acid group and the probe molecules being selected from the group consisting of nucleic acid fragments, oligonucleotides and peptide nucleic acids;

incubating the solid carrier having the spotted aqueous solutions on the surface thereby causing reaction for producing electrostatic bondings between the amino groups and the phosphoric acid groups; and

washing the surface of the solid carrier with an aqueous medium to remove all of the thickening agent from the surface of the solid carrier, thereby preparing the micro-array.

10-12. (Cancelled)

13. (Withdrawn) The process of claim 9, wherein the amino group is provided to the solid carrier by treating the solid carrier with an aminosilane coupling agent or a polycation compound.

14. (Withdrawn) The process of claim 9, wherein the aqueous medium for washing the solid carrier contains a surface active agent.

15. (Withdrawn) The process of claim 9, wherein each of the aqueous solutions has a viscosity identical to each other.

16. (Withdrawn) A micro-array for analysis of DNA which is prepared by claim 9.